SAMSUNG

This product is not manufactured for Iran. SVC Warraty will not be
applicable and the user will be responsible for service
expenses when the product is used in Iran.

QUESTIONS OR COMMENTS?

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AF28FVSDA✳✳ Series
AF28FVZDA✳✳ Series

Air Conditioner
user & installation manual

Planet First

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imagine the possibilities

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register your product at

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SAMSUNG

Features of your new air conditioner

█ Samsung Air Solution! Cool, Clean and refreshing feeling at once

Cool Air : Your air conditioner uses air flow direction control which provide direct air flow in hot days and indirect air flow when you are cooled down.

Refreshing Air : Auto mode will provide refreshing air by selecting the operation mode automatically from Cool, Dry, Purity depending on the indoor air environment.

█ 4 seasons of effective cleaning

Purity mode
► Purity mode can be selected solely to save energy.
► When the air conditioner operates, Zero filter and the Virus Doctor eliminates harmful contaminants to provide us with the cleanest air.

█ Smart sensor

Camera on the top of the indoor unit will detect the movement within the indoor and when there is no movement for a certain time, air conditioner will adjust the indoor temperature or turn off power automatically to save the energy

❊ Applicable to AF❊❊FVSD❊❊❊ only

Correct Disposal of This Product
(Waste Electrical & Electronic Equipment)

(Applicable in countries with separate collection systems)

This marking on the product, accessories or literature indicates that the product and its electronic accessories (e.g. charger, headset, USB cable) should not be disposed of with other household waste at the end of their working life. To prevent possible harm to the environment or human health from uncontrolled waste disposal, please separate these items from other types of waste and recycle them responsibly to promote the sustainable reuse of material resources.

Household users should contact either the retailer where they purchased this product, or their local government office, for details of where and how they can take these items for environmentally safe recycling.

Business users should contact their supplier and check the terms and conditions of the purchase contract. This product and its electronic accessories should not be mixed with other commercial wastes for disposal.

(For India only)

For more information on safe disposal and recycling visit our website
www.samsung.com/in or contact our Helpline numbers - 18002668282, 180030008282

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Contents

ENGLISH

Safety precautions

Before using your new air conditioner, please read this manual thoroughly to ensure that you know how to safely and efficiently operate the extensive features and functions of your new appliance.

If you have any questions, call your nearest contact center or find help and information online at www.samsung.com.

Important safety symbols and precautions:

⚠ **WARNING**	Hazards or unsafe practices that may result in **severe personal injury or death.**
⚠ **CAUTION**	Hazards or unsafe practices that may result in **minor personal injury or property damage.**
❗	Follow directions.
⃠	Do NOT attempt.
⏚	Make sure the machine is grounded to prevent electric shock.
🔌	Unplug the power plug from the wall socket.
🚫	Do NOT disassemble.

FOR INSTALLATION ⚠ WARNING

❗ **Use the power line with the power specifications of the product or higher and use the power line for this appliance only. In addition, do not use an extension line.**
  ▶ Extending the power line may result in electric shock or fire.
  ▶ Do not use an electric transformer. It may result in electric shock or fire.
  ▶ If the voltage/frequency/rated current condition is different, it may cause fire.
  The installation of this appliance must be performed by a qualified technician or service company.
  ▶ Failing to do so may result in electric shock, fire, explosion, problems with the product, or injury.
  Install a switch and circuit breaker dedicated to the air conditioner.
  ▶ Failing to do so may result in electric shock or fire.

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Fix the outdoor unit firmly so that the electric part of the outdoor unit is not exposed.

▶ Failing to do so may result in electric shock or fire.

Do not install this appliance near a heater, inflammable material. Do not install this appliance in a humid, oily or dusty location, in a location exposed to direct sunlight and water (rain drops). Do not install this appliance in a location where gas may leak.

▶ This may result in electric shock or fire.

Never install the outdoor unit in a location such as on a high external wall where it could fall.

▶ If the outdoor unit falls, it may result in injury, death or property damage.

This appliance must be properly grounded. Do not ground the appliance to a gas pipe, plastic water pipe, or telephone line.

▶ Failure to do so may result in electric shock, fire, an explosion, or other problems at the product.

▶ Never plug the power cord into a socket that is not grounded correctly and make sure that it is in accordance with local and national codes.

FOR INSTALLATION ⚠ CAUTION

This appliance should be positioned in such a way that it is accessible to the power plug.

▶ Failing to do so may result in electric shock or fire due to electric leakage.

Install your appliance on a level and hard floor that can support its weight.

▶ Failing to do so may result in abnormal vibrations, noise, or problems with the product.

Confirm that the indoor unit fixing device has been installed by confirming this with an installation engineer.

▶ If the indoor unit fixing device is not installed, the indoor unit may vibrate and fall and this may result in injury.

Install the draining hose properly so that water is drained correctly.

▶ Failing to do so may result in water overflowing and property damage.

Safety precautions

FOR POWER SUPPLY ⚠ WARNING

🛆 **When the circuit breaker is damaged, contact your nearest service center.**

🚫 **Do not pull or excessively bend the power line. Do not twist or tie the power line. Do not hook the power line over a metal object, place a heavy object on the power line, insert the power line between objects, or push the power line into the space behind the appliance.**

▶ This may result in electric shock or fire.

FOR POWER SUPPLY ⚠ CAUTION

🔌 **When not using the air conditioner for a long period of time or during a thunder/lightning storm, cut the power at the circuit breaker.**

▶ Failing to do so may result in electric shock or fire.

FOR USING ⚠ WARNING

❗ **If the appliance is flooded, please contact your nearest service center.**
 ▶ Failing to do so may result in electric shock or fire.

If the appliance generates a strange noise, a burning smell or smoke, unplug the power plug immediately and contact your nearest service center.
 ▶ Failing to do so may result in electric shock or fire.

In the event of a gas leak (such as propane gas, LP gas, etc.), ventilate immediately without touching the power line. Do not touch the appliance or power line.
 ▶ Do not use a ventilating fan.
 ▶ A spark may result in an explosion or fire.

To reinstall the air conditioner, please contact your nearest service center.
 ▶ Failing to do so may result in problems with the product, water leakage, electric shock, or fire.
 ▶ A delivery service for the product is not provided. If you reinstall the product in another location, additional construction expenses and an installation fee will be charged.
 ▶ Especially, when you wish to install the product in an unusual location such as in an industrial area or near the seaside where it is exposed to the salt in the air, please contact your nearest service center.

🚫 **Do not operate the appliance with wet hands.**
 ▶ This may result in electric shock.

Do not strike or pull the air conditioner with excessive force.
 ▶ This may result in fire, injury, or problems with the product.
 ▶ Importantly, if the support bracket is excessively impacted, it may become damaged.

Do not place an object near the outdoor unit that allows children to climb onto the machine.
 ▶ This may result in children seriously injuring themselves.

Do not turn the air conditioner off with the circuit breaker while it is operating.
 ▶ Turning the air conditioner off and then on again with the circuit breaker may cause a spark and result in electric shock or fire.

After unpacking the air conditioner, keep all packaging materials well out of the reach of children, as packaging materials can be dangerous to children.
 ▶ If a child places a bag over its head, it may result in suffocation.

Do not insert your fingers or foreign substances into the outlet when the air conditioner is operating or the front panel is closing.
 ▶ Take special care that children do not injure themselves by inserting their fingers into the product.

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Safety precautions

FOR USING ⚠️ WARNING

🚫 **Do not insert your fingers or foreign substances into the air inlet/outlet of the air conditioner.**
  ▶ Take special care that children do not injure themselves by inserting their fingers into the product.

Do not use this air conditioner for long periods of time in badly ventilated locations or near infirm people.
  ▶ Since this may be dangerous due to a lack of oxygen, open a window at least once an hour.

If any foreign substance such as water has entered the appliance, cut the power by unplugging the power plug and turning the circuit breaker off and then contact your nearest service center.
  ▶ Failing to do so may result in electric shock or fire.

Do not attempt to repair, disassemble, or modify the appliance yourself.
  ▶ Do not use any fuse (such as copper, steel wire, etc.) other than the standard fuse.
  ▶ Failing to do so may result in electric shock, fire, problems with the product, or injury.

FOR USING ⚠️ CAUTION

❗ **Do not place objects or devices under the indoor unit.**
  ▶ Water dripping from the indoor unit may result in fire or property damage.

Check that the installation frame of the outdoor unit is not broken at least once a year.
  ▶ Failing to do so may result in injury, death or property damage.

🚫 **Do not stand on top of the appliance or place objects (such as laundry, lighted candles, lighted cigarettes, dishes, chemicals, metal objects, etc.) on the appliance.**
  ▶ This may result in electric shock, fire, problems with the product, or injury.

Do not operate the appliance with wet hands.
  ▶ This may result in electric shock.

Do not forcefully open the front panel while air conditioner is operating.
  ▶ This may cause damage to the product.

Do not spray volatile material such as insecticide onto the surface of the appliance.

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▶ As well as being harmful to humans, it may also result in electric shock, fire or problems with the product.

Do not drink the water from the air conditioner.

▶ The water may be harmful to humans.

Do not apply a strong impact to the remote controller and do not disassemble the remote controller.

Do not touch the pipes connected with the product.

▶ This may result in burns or injury.

Do not use this air conditioner to preserve precision equipment, food, animals, plants or cosmetics, or for any other unusual purposes.

▶ This may result in property damage.

Avoid directly exposing humans, animals or plants from the air flow from the air conditioner for long periods of time.

▶ This may result in harm to humans, animals or plants.

This appliance is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction concerning use of the appliance by a person responsible for their safety. Children should be supervised to ensure that they do not play with the appliance.

Max current is measured according to IEC standard for safety and current is measured according to ISO standard for energy efficiency.

FOR CLEANING ⚠ WARNING

⊘ **Do not clean the appliance by spraying water directly onto it. Do not use benzene, thinner, alcohol or acetone to clean the appliance.**

▶ This may result in discoloration, deformation, damage, electric shock or fire.

Before cleaning or performing maintenance, unplug the air conditioner from the wall socket and wait until the fan stops.

▶ Failing to do so may result in electric shock or fire.

Safety precautions

FOR CLEANING ⚠ CAUTION

⚠ **Take care when cleaning the surface of the heat exchanger of the outdoor unit since it has sharp edges.**
- ▶ To avoid cutting your fingers, wear thick cotton gloves when cleaning it.

🚫 **Do not clean the inside of the air conditioner by yourself.**
- ▶ For cleaning inside the appliance, contact your nearest service center.
- ▶ When cleaning the internal filter, refer to the descriptions in the 'Cleaning the air conditioner' section. Failing to do so may result in damage, electric shock or fire.

Checking before use

Using indoor unit

Make **sure that curtain does not block the air inlet.**

▶ It may decrease cooling performance by blocking air circulation.

In Cool mode, set the appropriate desired temperature.

▶ If the desired temperature is too low, it may be harmful for human body and power consumption will also increase. Set the desired temperature about 5°C lower than the outdoor temperature.

When cooling the room, use air conditioner and fan together to save energy.

▶ When the air conditioner is used with fan, cooling will be more effective and energy can be saved.

When the air conditioner is operating, close the doors and windows.

▶ When the air conditioner is used with open doors and windows, cooling effect will decrease.

▶ If you use the air conditioner for over an hour, open the window to ventilate the air about once every hour.

Install the product away from sunlight or heating devices.

▶ Close the curtain when the sun shines.

▶ Do not use any heating devices during cooling operation. Cooling effect will decrease.

Storing indoor unit

▶ Dry the air conditioner thoroughly by operating Purity mode for 3 to 4 hours.

▶ Stop the operation and disconnect the power or turn off the auxiliary power switch.

⚠ **CAUTION** • Do not move the product on your own. Pipe may get loose or pipe can get damaged.

Using outdoor unit

Take away covers or barriers.

▶ It may cause product failure, and poor performance in cooling by blocking air flow.

Installing outdoor unit

▶ Install the outdoor unit in well ventilated area with no sunlight. If sunlight is unavoidable, install a sunshade.

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Checking before use

Auxiliary power switch

Turn on the auxiliary power switch which is installed separately. (Only applicable for outdoor unit with separate power supply)

NOTE	**Auxiliary power switch (NFB, ELB, etc.)**

- Auxiliary power switch is not included in the package. Purchase and install it separately.
- Auxiliary power switch is a device for preventing over-current or short circuit. Install it separately near the indoor unit and turn it off when cleaning or when you don't use it for long time.
- If NFB or ELB has already installed in the switch box of the building, you don't need to install auxiliary power switch.

Operation ranges

When the air conditioner operates outside of temperature and humidity range indicated below, protective device may activate and stop the operation.

Mode	Indoor temperature	Outdoor temperature	Indoor humidity
Cool	21℃ ~ 32℃	21℃ ~ 52℃	Relative humidity 80% or less
Dry	21℃ ~ 30℃	21℃ ~ 52℃	-

＊ If the air conditioner operates in cooling mode for long period of time in high humidity area, dew may be formed.

Functions available for each model

Model Name	Smart Sensor	ZERO Filter	Virus Doctor	Full HD Filter	Lighting
AF28FVSDA＊＊N	●	●	●	●	●
AF28FVZDA＊＊N	-	●	●	●	●

＊ The use of some function buttons on the remote controller may differ depending on the model. When pressing the function buttons on the remote controller which are for a different model from the one purchased, the icon of the selected function will be displayed, but cannot be used with your air conditioner.

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Checking the name of the parts

Your air conditioner may slightly look different from illustration depending on the model.

Indoor unit

Smart sensor(Camera)

Remote controller receiver

Display
Arise automatically when turning on the air conditioner

Air inlet
Intake outdoor air

Air control panel
Move with selected air direction

Lighting
Lighting is turned on or off

Air outlet
Discharge cool air

Control panel

Full HD filter

Zero filter

Full HD filter

Virus doctor

Front remote controller holder
Fix the remote controller holder on the front side of an indoor unit with screws.

Support bracket

⚠ **CAUTION**
• If the support bracket is excessively impacted, it may become damaged.

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나이지리아, 사우디향 FAC MEMORY 냉방_IBIM_EN_03794A(1).indd   13

2013-02-20   오후 4:04:55

Checking the name of the parts

Display

Mute

Fan speed

Virus doctor

Set | °C | Cool Dry

Cleaning

Timer

Temperature

good'sleep mode

Air conditioner operation mode
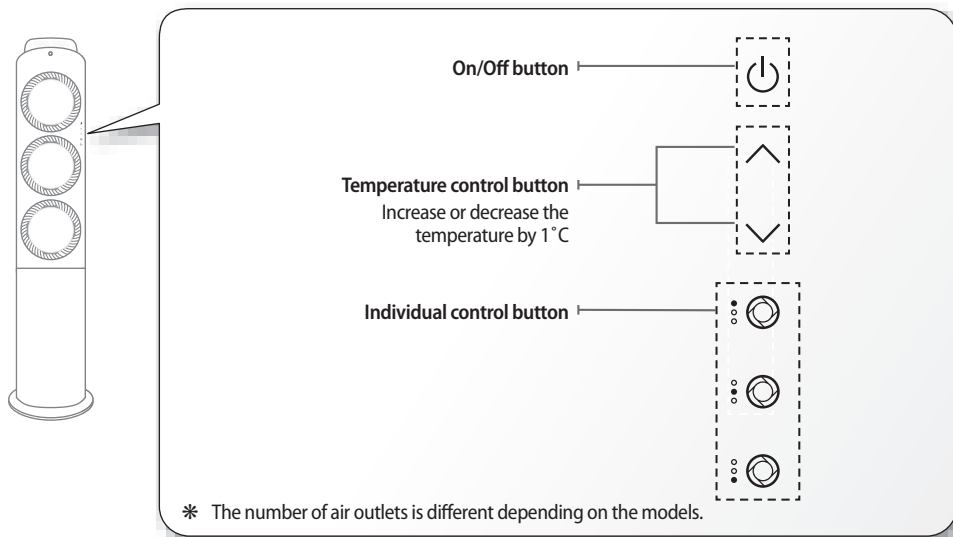Current operation mode is displayed.

Outdoor unit operation

Smart sensor operation
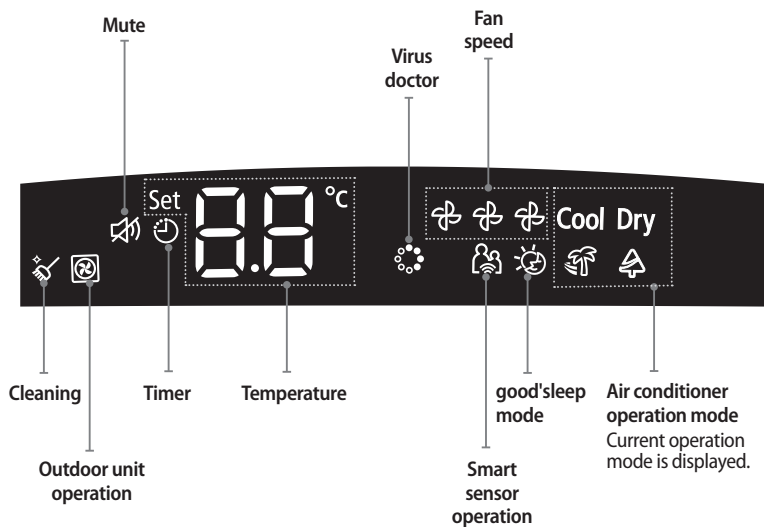
Buttons on control panel

On/Off button

Temperature control button
Increase or decrease the temperature by 1˚C

Individual control button

✳ The number of air outlets is different depending on the models.

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Operation with control panel

1. Press the **Power** (¹) button to operate the air conditioner.
▶ The air outlets will open in order with melody sound and the air conditioner will operate with auto mode.

2. Press the [∧], [∨] buttons to adjust the desired temperature.
▶ When pressing the button first, the mode of air conditioner will change to cool mode.
▶ You can adjust the desired temperature by 1˚C within the range of 18˚C ~ 30˚C by pressing the [∧], [∨] buttons.

3. Adjust fan height with the three individual air outlet control buttons.
▶ You can adjust the fan height by controlling the air outlet individually.
▶ Individual control will be canceled when turning the air conditioner off and on.

✽ The fan speed of each air outlet will differ.
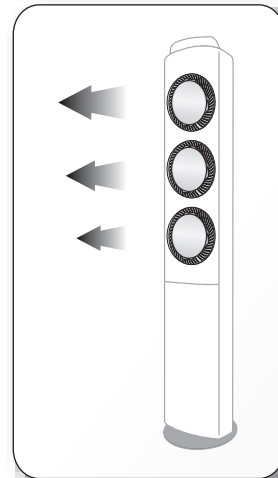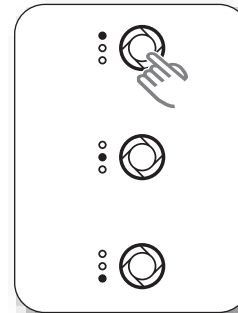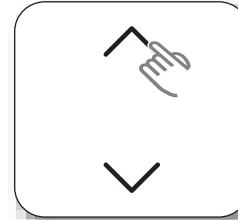
Checking the remote controller

Function may be different depending on the model.

▶ Point the remote controller towards the remote control receiver of the unit.

▶ When the button is pressed, you will hear ringing or beep sound and Transmit indicator ( ) will appear on the remote controller display.

Remote controller buttons

Remote controller display ▸

Power ᵩ
Turn on/off the air conditioner

Purity ▸
Select Zero filter and Virus doctor

Smart Sensor ▸
Select Smart sensor mode
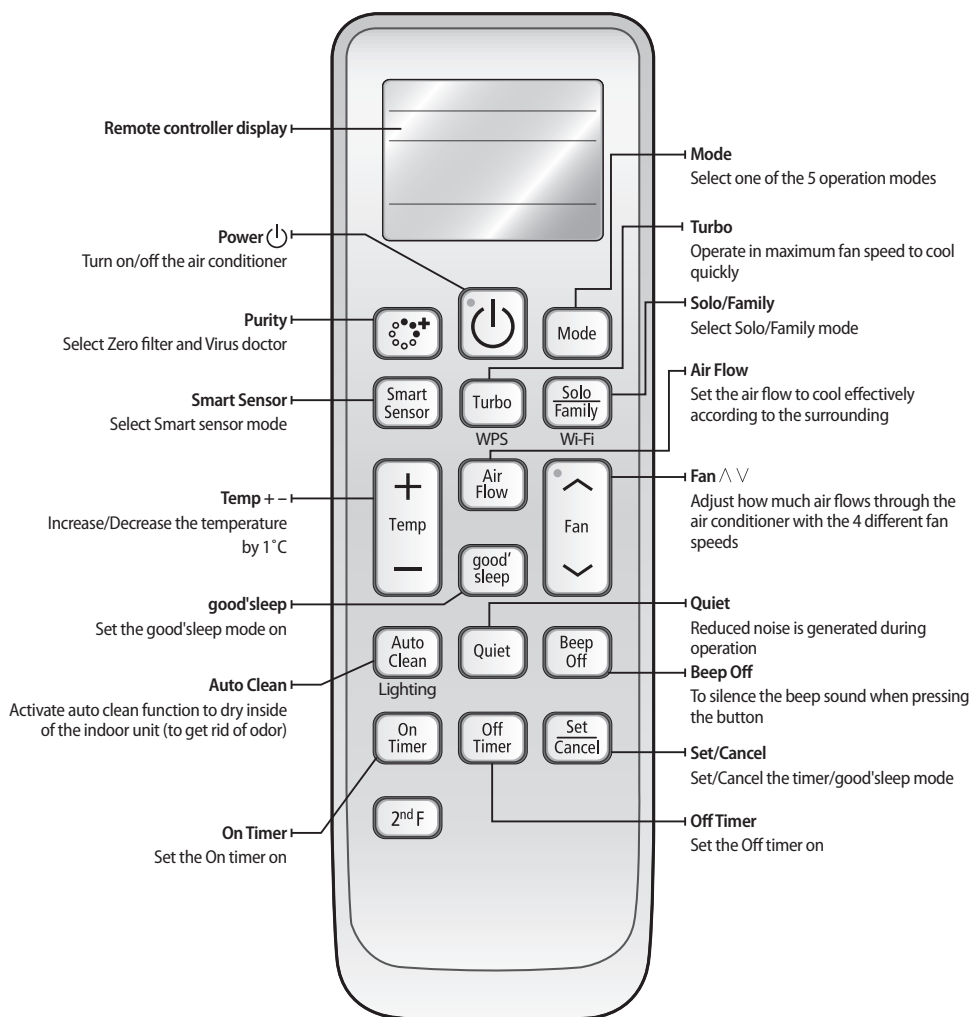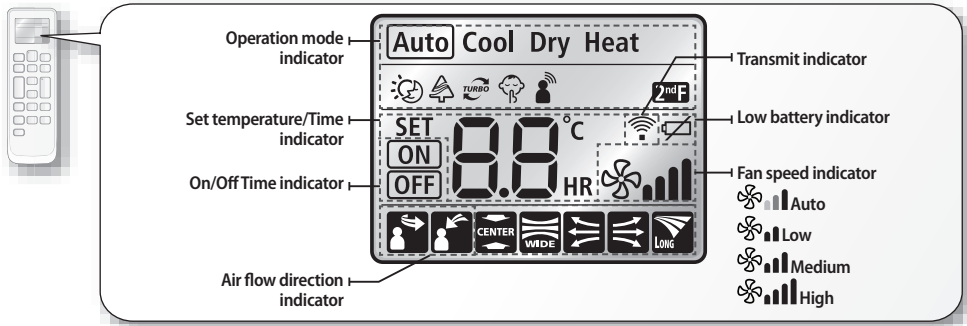
Temp + − ▸
Increase/Decrease the temperature by 1°C

good'sleep ▸
Set the good'sleep mode on

Auto Clean ▸
Activate auto clean function to dry inside of the indoor unit (to get rid of odor)

On Timer ▸
Set the On timer on

Mode ◂
Select one of the 5 operation modes

Turbo ◂
Operate in maximum fan speed to cool quickly

Solo/Family ◂
Select Solo/Family mode

Air Flow ◂
Set the air flow to cool effectively according to the surrounding

Fan ∧ ∨ ◂
Adjust how much air flows through the air conditioner with the 4 different fan speeds

Quiet ◂
Reduced noise is generated during operation

Beep Off ◂
To silence the beep sound when pressing the button

Set/Cancel ◂
Set/Cancel the timer/good'sleep mode

Off Timer ◂
Set the Off timer on

NOTE
• **2ⁿᵈF button:** When pressing the **2ⁿᵈF** button, 2ⁿᵈF will appear on the remote controller display and you can select the below function of a button.(e.g. When pressing ▷ , you can select the Lighting function.) If you press the **2ⁿᵈF**, **Power**, **Purity** and the **Set/Cancel** button or don't press any buttons for 10 seconds, the display will disappear and you can select the function of the button.

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Remote controller display

Operation mode indicator
Set temperature/Time indicator
On/Off Time indicator
Air flow direction indicator

Auto Cool Dry Heat

TURBO

2ndF

SET
ON
OFF

°C

HR

CENTER

WIDE

LONG

Transmit indicator
Low battery indicator
Fan speed indicator
- Auto
- Low
- Medium
- High

❋ Heat mode will be displayed on the remote controller and reception sound will be ringing but the air conditioner will not operate the heat mode. When you select heat mode with a remote controller and you turn the air conditioner off and on, the air conditioner will operate with auto mode and heat mode will be displayed on the remote controller. Change the operation mode of a remote controller.

❋ Left fan and right fan will be displayed as not supported function and reception sound will be ringing. However, the left and right fans will not operate.

Battery changing time

When the battery is exhausted,( )will be displayed in the remote controller display. When the icon appears, change the batteries. The remote controller requires two 1.5V AAA type batteries.
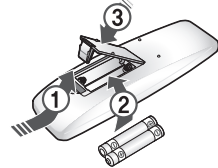
Storing the remote controller

When you do not use the remote controller for a long time, remove the batteries from the remote controller and store it.

Inserting the batteries

1. Open the battery cover.
▶ Push the ( ) part in the direction of the arrow and lift up the cover.
2. Insert the batteries.
▶ Check and match the (+), (-) signs and insert them in correct position.
3. Close the battery cover.
▶ Match the cover and bottom part of the remote controller and press it until you hear click sound.

⚠ CAUTION
• Make sure that water is not allowed to enter the remote controller.

📋 NOTE
• There is a possibility that the air conditioner will not operate by remote controller near strong light such as a fluorescent lamp or neon sign. In this case, use the remote controller in front of the remote controller receiver of the indoor unit.
• If other electrical products are operated by the remote controller, call your nearest service center.

Correct disposal of batteries in this product

(Applicable in countries with separate collection systems)

This marking on the battery, manual or packaging indicates that the batteries in this product should not be disposed of with other household waste at the end of their working life. Where marked, the chemical symbols Hg, Cd or Pb indicate that the battery contains mercury, cadmium or lead above the reference levels in EC Directive 2006/66. If batteries are not properly disposed of, these substances can cause harm to human health or the environment.

To protect natural resources and to promote material reuse, please separate batteries from other types of waste and recycle them through your local, free battery return system.

ENGLISH

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Basic operation

Basic operation is an operation mode that can be selected by pressing the **Mode** button.

Auto

In Auto mode, the air conditioner will automatically set the operation mode in Cool/Dry/Fan mode to provide refreshing air throughout your indoor area.

▶ In Auto mode, the air conditioner will automatically set the operation mode depending on the indoor surrounding.
  - Display on the indoor unit will display Auto (Cool), Auto (Dry) and Auto (Purity)

▶ In Auto mode, Smart sensor will detect the surrounding area with the camera on the indoor unit. Therefore, air flow direction and the fan speed may different depending on the surrounding condition.

▶ When selecting the individual operation of an indoor unit in auto mode, the indoor unit will change to cool mode.

Cool

Cool mode is frequently used and you can freely control the temperature, fan speed, and air flow direction in cool mode.

Dry

The air conditioner in Dry mode acts like a dehumidifier by removing moisture from the indoor air. Outdoor unit will repeatedly and automatically turn on/off for maximum dehumidification according to the temperature difference of the current and desired temperature. When the outdoor unit operates, cool air may come out from the indoor unit.

▶ As you lower the set temperature of a remote controller, the amount of dehumidification will increase.

▶ As you lower the set temperature of a remote controller, indoor temperature may decrease.

Purity ( )

This operation eliminates harmful contaminants within the air to provide a healthy and clean environment.

▶ You can select Purity mode by pressing the   button while the air conditioner is on or off.

▶ In purity mode,   will appear on the display of an indoor unit and   will appear in 1 minute.

▶ You can press the   button during Cool/Dry mode and adjust the desired temperature.

▶ If you select Purity function in Auto mode, operation mode will change to Cooling (Purity) mode.

▶ Front panel will be closed slightly when Purity mode is selected solely while the air conditioner is operating.

▶ When the Purity mode is selected during air conditioner operation, changes in power consumption or operation noise will be very subtle.

▶ When the air conditioner and Purity mode is on at the same time, you can press the **Power** ⏻ button to stop the operation.

▶ When Purity mode is on, you can press the   button to stop the Purity operation.

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Press the [⏻] **button to turn on the air conditioner.**

Press the [Solo Family] **button to set Solo/Family mode.**
• Solo : Select this function if you are alone in the room and save electricity bill.
• Family : Select this function if there are lots of people in the room or require powerful cooling.

Family mode	Solo mode	Remarks
◯ ◯ ◯	● ◯ ◯	The middle air outlet will be closed when the air conditioner reaches the desired temperature in solo mode. When selecting the solo mode in purity mode, the upper and middle air outlets are closed.

◯ : Open ● : Close

• Family mode is set as default setting in all operation mode except Auto mode.
• During Auto mode, Solo/Family mode cannot be changed with remote controller.

Press the [Mode] **button to set the operation mode.**
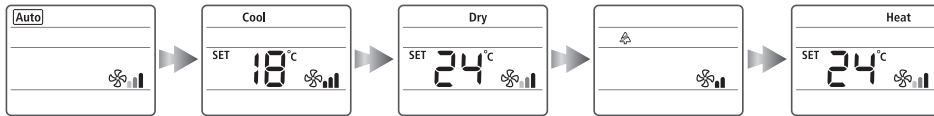
| Auto | ➡ | Cool
SET 18 °C | ➡ | Dry
SET 24 °C | ➡ | ⚠ | ➡ | Heat
SET 24 °C |

❋ **Heat mode will be displayed on the remote controller and reception sound will be ringing but the heat mode will not operate.**

Press the [Fan] **button to set the desired fan speed.**

Auto	🌀▮ (Auto) [Operation mode will change to Cool mode when the Fan speed is adjusted.]
Cool	🌀▮ (Auto), 🌀▮ (Low), 🌀▮▮ (Medium), 🌀▮▮▮ (High)
Dry	🌀▮ (Auto)
Purity (⚠)	🌀▮ (Low), 🌀▮▮ (Medium), 🌀▮▮▮ (High)

Press the [Temp] **button to adjust the desired temperature.**

Auto	Operation mode will change to Cool mode when desired temperature is adjusted.
Cool	You can adjust the desired temperature by 1℃ within the range of 18℃~30℃.
Dry	You can adjust the desired temperature by 1℃ within the range of 18℃~30℃.
Purity (⚠)	Temperature adjustment is not possible.

NOTE
• If you select Purity function additionally while operating in other mode, you can adjust the temperature (except in Auto mode).
• If you press the **Temp** + or - button on the indoor unit control panel while operating in Purity mode, operation mode will change to Cool mode.

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Turbo operation

Turbo function will be helpful to cool your room quickly and effectively.

Press the ⬚Turbo button on the remote controller in the Cool mode.
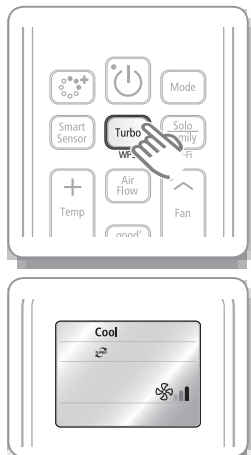
▶ Turbo indicator 🌀 appears on the remote controller display and the air conditioner will operate in Turbo function for 30 minutes.

| **Cancel** Press the **Turbo, Mode, Quiet, Smart Sensor** or **good`sleep** button. |

NOTE
- Turbo function is only available in the Cool mode.
- If you select the Turbo function during the Quiet/Smart sensor/good`sleep operation, the Quiet/Smart sensor/good`sleep operation will be canceled.
- You can adjust the air flow direction.
- You cannot adjust the desired temperature and fan speed.
- When selecting the individual operation of an indoor unit in turbo operation, the indoor unit will change to cool mode.

Air flow direction

You can adjust the air flow direction according to the surrounding environment.

Press the ⬚Air Flow button to select desired air flow direction.
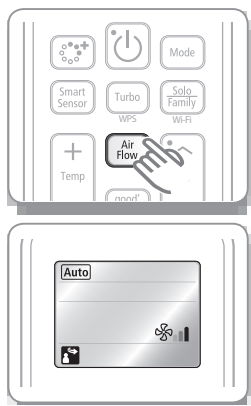
🔼 Indirect	Air will not flow to the person directly but provide coolness rather indirectly.
🔼 Direct	Cool air will flow directly to the person.
CENTER Center	Cool air will come out intensively from the center.
WIDE Wide	Air flow blades will move left/right to provide the cool air to wide range of area**.**
LONG Long	It is efficient to cool the area further away.

Operation mode	Supported air flow
Auto	Indirect, Direct
Cool/Dry/Purity	Center, Wide, Long

NOTE
- Air flow cannot be selected during good'sleep mode.
- When the Long air flow direction is selected, you may change the fan speed from the remote controller and the beep may sound but the air conditioner is not actually operating in selected setting.

MODE	Model Name	Air flow direction
AUTO	AF28FVSDA✳✳N	Indirect, Direct
	AF28FVZDA✳✳N	You cannot adjust the direction of air flow.

good'sleep operation

For a comfortable sleep, the air conditioner will operate in Fall asleep ▷ Sound sleep ▷ Wake up from good' sleep mode.

When the air conditioner is on and in cool mode.
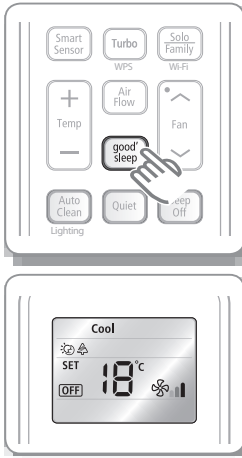
1. Press the **good'sleep** button on the remote controller to select the good'sleep mode.
   ▶ good'sleep indicator appears and Off timer indicator starts blinking on the remote controller display.
2. Press the **good'sleep** button to set the time.
   ▶ You can set the time in half hourly units from 30 minute ~ 3 hours and hourly units from 3 hour ~ 12 hours.
   ▶ The operation hour can be set to minimum 30 minutes and maximum 12 hours.
   ▶ Default operation hour is set to 8 hours.
3. Press the **Set/Cancel** button to activate it.
   ▶ Off timer indicator stops blinking and set time will be displayed.
   ▶ ☼ / 🕐 icon appears in the display of the indoor unit and good'sleep mode starts operating.
   ▶ If you don't press the **Set/Cancel** button to start the good'sleep mode within 10 seconds, the operation is canceled so you should check the Off indicator on the remote controller display and ☼ / 🕐 icon on the indoor unit display.

| Cancel | Press the **Set/Cancel** button once again. |

+ Temp −	You can set the desired temperature by 1˚C within the range of 18˚C~30˚C.
Fan	Fan speed will be adjusted automatically according to the good'sleep mode.
Air Flow	Air flow direction will be adjusted automatically according to the good'sleep mode.

good'sleep operation

Temperature and fan speed changes in good'sleep mode

1. Fall asleep mode : Provides you with comfortable environment for a good sleep by rapid cooling and hypnagogue expedition breeze.

2. Sound sleep mode : The sound sleep mode adjust temperature and air flow in waves to maintain healthy skin temperature while it aids deep sleep. According to the change of good'sleep operation hours, the sound sleep   hour can be longer or shorter.

3. Wake up from good'sleep mode : Provides you with the air flow that adjusts your body temperature to wake you up in a fresh status.

NOTE
- In first 30 minutes of good'sleep mode, air conditioner will operate in Purity (Cool) mode.
- The recommended set temperature is 25℃~27℃ and 26℃ is the most ideal temperature. If the set temperature is too low, you may feel cold or dry and catch a cold.
- You may not have such a restful sleep if the good'sleep is set too short or long because the default is set to 8-hour-operation.
- If the good'sleep mode is set less than 4 hours, the operation will stop after the set hours. If the good'sleep mode is set over 5 hours, it will run as Wake up stage from the last one hour before it stops automatically.
- If you press the **Solo/Family, Smart Sensor, Turbo, Mode** or **Quiet** button during the good'sleep operation, the operation is canceled and the selected operation starts.
- Only the latest setting timer will be applied between the On Timer/Off Timer and good'sleep functions.
- You can set the Purity function during the good'sleep operation.
- When operating the good'sleep mode, the air outlet will be automatically turned off and on depending on the difference between the current temperature and desired temperature.

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Setting the On/Off timer

You can set the air conditioner to turn on/off automatically at desired time.

Setting On timer while the air conditioner is off / Off timer while the air conditioner is on.
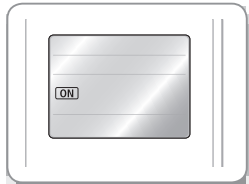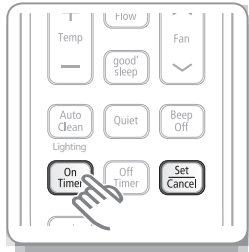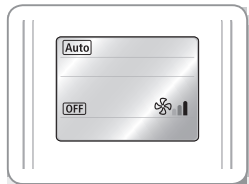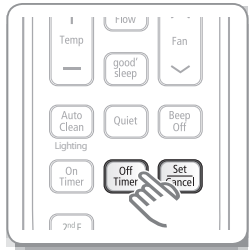
1. Press the **On timer** or **Off timer** button.
   ► On/Off timer indicator will blink on the remote controller display.
2. Press the **On timer** or **Off timer** button repeatedly to set the time.
   ► You can set the time in half hourly units from 30 minute ~ 3 hours and hourly units from 3 hour ~ 24 hours.
   ► The set hour is set to minimum 30 minutes and maximum 24 hours.
3. Press the **Set/Cancel** button to activate it.
   ► On/Off timer indicator will stop blinking and the set time will be displayed.
   ► 🕐 icon appears in the display of the indoor unit and timer setting will be completed.
   ► If you don't press the **Set/Cancel** button within 10 seconds after selecting the On/Off timer function, the air conditioner will return to the previous status, so you should check the On/Off timer indicator on the remote controller display or 🕐 icon on the indoor unit display.

<Setting On timer>

Cancel   Press the **Set/Cancel** button once again.

Additional options available in On timer mode	
Mode	You can select from Auto ▷ Cool ▷ Dry ▷ Purity ▷ Heat. When setting the on timer with **Heat mode**, the air conditioner will operate with **Auto mode**.
Temp	You can adjust the temperature in Auto/Dry mode. Operation mode will change to Cool mode if you press the **Temp** + or - button in Auto mode, and you cannot adjust the temperature during Purity mode.
Fan	You cannot adjust the fan speed.

<Setting Off timer>

NOTE
- Only the latest setting timer will be applied between the On Timer/Off Timer and good'sleep functions.
- About 10 seconds after setting the On timer, only the On timer indicator will appear on the remote controller display.
- If you press the **Power** button on the indoor unit after setting the On timer function with the remote controller, Timer indicator on the indoor unit display will disappear and the function will be canceled. However, Timer indicator on the remote controller will remain on but the function will not work.

Setting the On/Off timer

Combining On Timer and Off Timer	
If the air conditioner is On	If the air conditioner is Off
Preset time on On timer is shorter than Off timer Ex) On timer : 3 hours, Off timer : 5 hours - The air conditioner will turn on after 3 hours from the moment you have set the timer. Your air conditioner will remain on for 2 hours and then turn off automatically.	**Preset time on On timer is longer than Off timer** Ex) On timer : 3 hours, Off timer : 1 hour - The air conditioner will be turned off after 1 hour from the moment you have set the timer. After 2 hours, your air conditioner will turn on.

NOTE
- On timer and Off timer setting time should be different from each other.
- If you press **Set/Cancel** button or **Power** ( ) button while the both On timer and Off timer are set simultaneously, the functions of both On timer and Off timer are canceled at the same time.

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Smart sensor operation

In Cool mode, camera on the top of the indoor unit will detect the movement within the indoor and when there is no movement for certain time, air conditioner will adjust the indoor temperature or turn off power automatically.

Press the Smart Sensor button during Cool mode.

✳ Applicable to AF✳✳FVSD✳✳✳ only
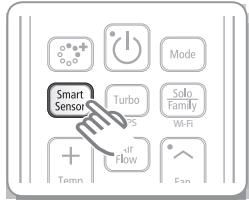
► 📡 icon appears on the remote controller display and the icon appears on the indoor unit display.

► When the movement is not detected for 1 hour, temperature will be adjusted automatically.

► When the movement is not detected for 2 hours, air conditioner will turn off automatically.

Cancel Press the **Smart Sensor** button once again.
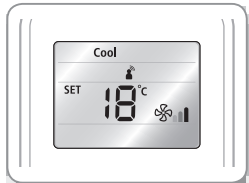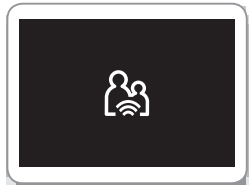
NOTE
- Smart sensor will detect about 25° on the left and right side of the product.
- In dark places, camera cannot detect the movement and Smart sensor function may not work properly.
- Smart sensor mode may get disturbed by change of light or movement change caused by devices such as TV, fan...etc.

<Remote controller display>

<Indoor unit display>

Lighting function

You can create fresh mood of indoor room with soft light by turning the light on.

Press the Auto Clean Lighting button to adjust the lighting level of an indoor unit.
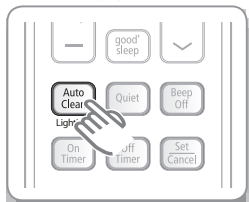
► Each time you press the **Lighting** button during air conditioner operation, the lighting level will be adjusted. (The lighting function will work only with opened air outlet.)

<Remote controller display>

Press times	Brightness
1	Level 1 (Low)
2	Off
3	Level 3 (High)
4	Level 2 (Medium)

NOTE
- The lighting figure may change depending on the status of air conditioner operation.
- The lighting figure will differ depending on the models.
- The use of lighting function will be different depending on the model.
- When the air conditioner is turned off, the reception sound will be ringing from the air conditioner but the lighting function will not operate.

ENGLISH

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Quiet operation

This function can reduce the noise generated during air conditioner operation.

Press the [Quiet] **button to select Quiet function.**
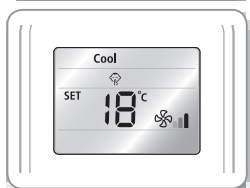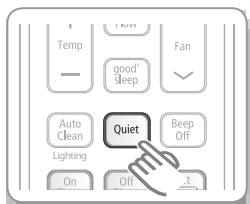
► $\Leftrightarrow$ icon will appear on the remote controller display.

Cancel	Press the **Quiet**, **Mode** or **Fan** $\wedge$, $\vee$ button once again.

Temp $+$ $-$	You can adjust the desired temperature by 1°C within the range of 18°C~30°C.
Fan $\wedge$ $\vee$	Since the fan speed is fixed as $\Leftrightarrow$ ▮▮ (Auto), pressing the **Fan** $\wedge$, $\vee$ button will cancel the Quiet operation.
Air Flow	You can set the air flow direction.

NOTE
- You can select the Quiet operation while the air conditioner is in cool mode. If you select the Quiet operation during the Smart sensor/Turbo/good'sleep operation, corresponding operation will be canceled.
- When selecting the individual operation of an indoor unit in quiet operation, the indoor unit will change to cool mode.

Auto clean operation

Auto clean function will prevent mold from growing by eliminating the moisture inside of the indoor unit.

Press the [Auto Clean] **button.**
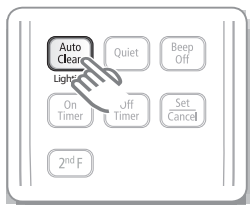
When the air conditioner is turned on,
► $\Leftrightarrow$ icon appears in the display of the indoor unit and the Auto cleaning function will run for 3 minutes after air conditioner stops operating.

When the air conditioner is turned off,
► $\Leftrightarrow$ icon appears in the display of the indoor unit and the Auto cleaning function will run for 3 minutes.

Cancel	Press the **Auto Clean** button once again.

NOTE
- The Auto clean indicator appears only on the indoor unit display.
- If you select another mode during auto clean operation, the selected mode will start its operation. When the selecte mode finishes, the auto clean function will be initialized and run again for 3 minutes.

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Cleaning the air conditioner

⚠ **CAUTION** • Make sure to turn off the circuit breaker when cleaning the air conditioner.

Cleaning the indoor unit

▶ Wipe the surface of the unit with a slightly wet or dry cloth when needed.

▶ Brush away the dust on the narrow gap of air conditioner.

📄 **NOTE**
• Since the panel of the product can be scratched easily, use the exclusive cleaning cloth (micro fiber) for cleaning. Wet the exclusive cleaning cloth (micro fiber) with little bit of water, and make sure to remove any foreign object on the cloth since the product can be scratched easily.
• When cleaning the indoor unit, use soft and slightly wet cloth(micro fiber) because the indoor unit panel is easily scratched. Dust off the cloth before cleaning to prevent indoor unit from being scratched by the foreign material on the cloth.
• If it is difficult to clean the indoor unit heat exchanger on your own, contact service center.

⚠ **CAUTION**
• Do not clean the display using alkaline detergent.
• Do not clean the surface with sulfuric acid, hydrochloric acid or organic solvents (thinner, kerosene, acetone) or attach stickers. It may damage the surface of the unit.
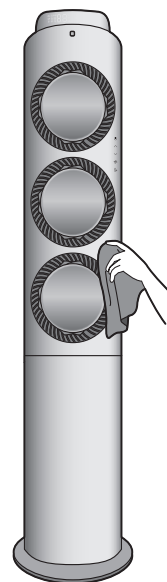
Cleaning the outdoor unit heat exchanger

▶ When dust accumulates on the heat exchanger, it may decrease cooling performance. Therefore, clean it regularly.

▶ Spray water to clean the dust.

📄 **NOTE**
• If it is difficult to clean the outdoor unit heat exchanger on your own, contact service center.

⚠ **CAUTION**
• Be careful with the sharp edges on the outdoor unit heat exchanger.
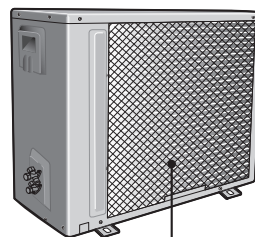
Heat exchanger

Cleaning the air conditioner

Cleaning the Full HD filter

Full HD filter filters the big dust of incoming air.

Pull out the Full HD filter in the arrow direction.

▶ Before pulling out the lower Full HD filter, take out the Zero filter first.
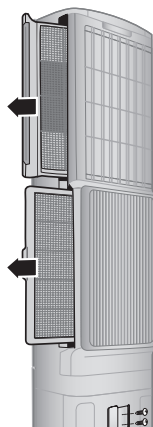
Remove dust with a vacuum cleaner or running water.

▶ When the dust is serious, clean the filter with warm water which contains a neutral detergent. However, when rubbing out the filter with a brush, the Full HD filter may be damaged.
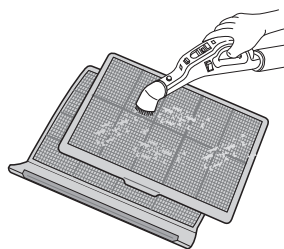
Push the Full HD filter to the end in the arrow direction so that it can be completely fixed.

▶ After pushing the lower Full HD filter, push the Zero filter.
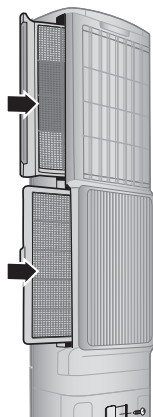
Dry the filter completely in the shade.

▶ When drying the Full HD filter, make sure the filter is not exposed to direct sunlight.

NOTE
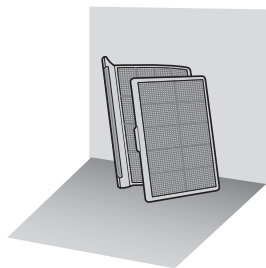
- Clean the Full HD filter every 2 weeks. Cleaning term may differ depending on the usage and environmental conditions.

▌Cleaning the Zero filter

Zero filter traps small dust particles within the air. It is washable and it can be used semi-permanently.

Remove the lower Full HD filter. Grasp the handle on the Zero filter and remove it by pulling it in the direction of the arrow shown in the figure.
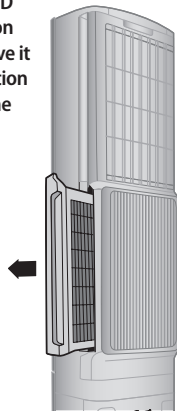
Soak the filter in the water and shake it up and down for few times.

▶ Do not disassemble the Zero filter when cleaning it.

▶ If the accumulated dust is heavy, soak the filter in water mixed with detergent and shake it in water for 30 minutes until it is cleaned.
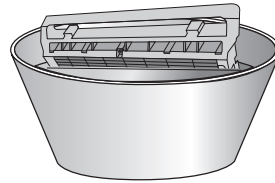
Push the Zero filter in the direction of the arrow and make sure it is fixed in correct position. Put the lower Full HD filter back.
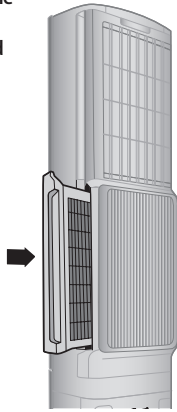
Dry the filter in a ventilated area.

▶ Put the filters vertically for 12~24 hours when drying (Drying time can be shorter depending on the condition)

▶ Do not dry the Zero filter in direct sunlight. It may get deformed.
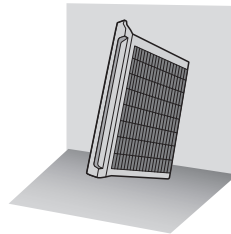
⚠ **CAUTION** • Be careful with the sharp rear surface of the Zero filter. You may cut in your hands.

📑 **NOTE** • Clean the Zero filter every 3 months. (Based on 8 hours of use per day.) Cleaning term may differ depending on the usage and environmental conditions.

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Troubleshooting

Refer to the following chart if the air conditioner operates abnormally. This may save time and unnecessary expenses.

PROBLEM	SOLUTION
The air conditioner does not work at all.	• Check power status and then operate the air conditioner again. • Switch on the circuit breaker and then operate the air conditioner again. • Check if the air conditioner is turned off by Off timer or Smart sensor. Operate the air conditioner again by pressing the **Power** ⏻ button.
Front panel remains open.	• Check if there is a power failure. • Check if there is any object blocking the front panel from closing. Remove the object and then operate again.
The temperature adjustment is not working.	• Check if you have selected Turbo/Purity mode. In these modes, temperature adjustment is not available.
Cool air does not come out of the air conditioner.	• Check if the set temperature is higher than the current temperature. • Check if the Full HD filter is blocked by dirt. If there is a lot of dust on the Full HD filter, cooling performance may decrease. Clean them frequently. • Check if the outdoor unit is covered or installed near the obstacle. Take the cover off and take the obstacle away. • If you want to operate the air conditioner in the sunlight, cover the outdoor unit using curtains or etc. • If the doors or windows are open, it may cause poor cooling performance. Close the doors and windows. • If you have selected Purity mode without selecting other mode, cool air does not come out of the air conditioner. Press the **Mode** button to select other mode. • Check if the pipe length is too long. When the pipe length exceeds maximum allowable pipe length, cooling performance may decrease.
Air flow adjustment is not working.	• Check if you have selected good'sleep mode. In this mode, you cannot adjust the air flow direction since it is set to Auto.
Fan speed adjustment is not working.	• Check if you have selected Dry/Turbo/good'sleep mode. In these modes, fan speed is set to Auto and you cannot adjust the fan speed.

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PROBLEM	SOLUTION
Remote controller is not working.	• Check if your batteries are depleted. • Make sure nothing is blocking your remote controller sensor. • Check whether there are strong lighting apparatus near the air conditioner. Strong light which comes from fluorescent bulbs or neon signs may interrupt the electric waves. • Stand towards the center of the product, point the remote controller towards the remote control receiver and press the button.
Timer function does not work.	• Check if you have pressed the **Set/Cancel** button on the remote controller after setting the time.
The air conditioner is not turned off.	• Check the air conditioner is in auto cleaning mode. When turning the air conditioner off after using the auto cleaning function, it will take 3 minutes to turn the air conditioner off.
Odors permeate in the room during operation.	• Odor may permeate depending on the surrounding environment or operating condition. Ventilate the indoor air. • Check if the appliance is running in a smoky area. Ventilate the room or operate the air conditioner in Purity mode for 1~2 hours. (We do not use smelly components in the air conditioner.) • Clean the Zero filter and Full HD filter if they are dirty.
Error is indicated	• When error indications appear on the indoor unit display, press the **Set/Cancel** button and **Fan** ⌄ button for 3 minutes. If error indications appear again, contact a service center. • When E1→01, E2→01, and E2→02 appear on the indoor unit display, check the power cable of outdoor unit is connected. If the connection is ok, turn the indoor unit off and on again. • When E1→03, E1→05, E1→21, E1→22, E1→23, E1→28, E1→29, E1→54, E1→55, E1→61, E1→63, E1→87, E1→98, E2→03, E2→21, E2→37, E2→46, E2→51, E2→61, E3→20, E4→01, E4→04, E4→16, E4→19, E4→40, E4→41, E4→58, E4→61, E4→62, E4→63, E4→64, E4→65, E4→66, E4→67, E4→68, E4→69, E4→70, E4→71, E4→72, E4→74, E4→83, E4→85, E5→00, E5→54 are blinking, the air conditioner has a problem. In this case, contact a service center.

Troubleshooting

PROBLEM	SOLUTION
Noise is generated	• Depending on the status of the air conditioner usage, noise can be heard when refrigerant flow movement changes. It is normal. • Crackling sound may occur during the operation of the air conditioner, push the Zero filter to the end.
Water is dropping from the outdoor unit piping connection	• Water may be generated because of the temperature difference. It is normal. • When the humidity difference of air outlet is big, water drop may be formed and dripping. Therefore, do not worry about this with product malfunction.

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Safety precautions

Carefully read the content of this manual before installing the air conditioner and store the manual in a safe place in order to be able to use it as reference after installation.

⚠ **WARNING**	Hazards or unsafe practices that may result in **severe personal injury or death.**
⚠ **CAUTION**	Hazards or unsafe practices that may result in **minor personal injury or property damage.**

WARNING

▶ Installation must be carried out by a qualified installer.
- Do not attempt to repair, move, modify or reinstall the unit on your own since such act may cause fire, electric shock or water leakage.
▶ Install the unit in a place where it is strong enough to hold the product weight.
- When installed in place where it is not strong enough to withhold the product weight, the unit could fall and cause injury.
▶ The unit should be installed in accordance with the National Electrical regulations by a qualified installer and leased circuit must be used.
- Lack of capacity on leased circuit or improper installation may cause electric shock or fire.
▶ Use the specified wires to connect the indoor and outdoor units securely and attach the wires firmly to the terminal block connecting sections so that the pressure is not applied to the sections.
- Inappropriate connection and fixing could cause fire.
▶ Attach the electrical cover to the indoor and outdoor unit securely without any gaps.
- If there are any gaps, there is potential risk of fire or electric shock due to dust or water.
▶ Make sure to use the part provided or specified parts for the installation work.
- The use of defective parts could cause an injury or leakage of water due to a fire, an electric shock, the unit falling, etc.
▶ Make sure that the refrigerant gas does not leak after completing the installation.
- If the refrigerant gas comes into contact with the heating apparatus, harmful gas will be generate.
- If the refrigerant gas of the indoor unit leaks and comes into contact with the fan heater, space heater or stove, harmful gas will be generated.
▶ Ensure that a proper ground wire is in place.
- Do not connect the ground wire to a gas pipe, water pipe, lightning rod or telephone grounding. Defective grounding could cause electric shock.
▶ Do not install the unit in a place where it is exposed to inflammable gas leakage.
- When leaked gas accumulates around the product, it may cause fire.
▶ Perform the installation securely referring to the installation manual.
- Incomplete installation could cause water leakage, electric shock or fire.
▶ Before connecting the power plug and power receptacle check for dust, looseness or blockage. Make sure that plug is fully inserted.
- Dusted power plug, blocked or loosened power receptacle may cause fire or electric shock. Exchange the power receptacle if it is loose.
▶ Check first the following situations before starting the operation during the installation.
- The pipe must be properly connected and make sure there is no leakage.
- Service valves must be open. If compressor is operated with the service valve closed, excessive pressure may damage parts of the compressor. If leakage occurs on any of the connections, air inflow may also cause excessive pressure that could lead to explosion.

Safety precautions

WARNING

▶ Do not assemble the power cord on your own, use two cables together to extend the cable length or tangle the cable.
  - Bad connection, isolation and over voltage may cause fire or electric shock.
▶ Make sure to turn off the main power when setting up the indoor unit electrical circuit or power cords.
  - There is a risk of electric shock.
▶ Install a ground leakage breaker depending on the installation place.
  - If not, it may cause electric shock.
▶ Never use the components and pipes for R-22 refrigerant on the models using R-410A refrigerant.
  - If the oil used for R-410A gets mixed with the mineral oil for R-22, it will get hydrolyzed and cause product damage.

CAUTION

▶ Check if the product is in good shape before the installation.
  - Do not install the product with the damage which occurred during shipment.
▶ Read the installation manual thoroughly before installing the air conditioner.
▶ Before installing the air conditioner, make sure to discuss the location selection and the precautions on the installation manual with the user.
▶ Perform the drainage/piping work securely according to the installation manual.
  - If not, water could drip from the unit and household goods could get wet and damaged.
▶ Fasten a flare nut with a torque wrench as specified in this installation manual.
  - When fastened too tightly, a flare nut may break after a long period of time and cause refrigerant leakage.
▶ Wear thick gloves during the installation process.
  - If not, personal injury may occur due to the air conditioner parts.
▶ Be careful not to touch the outdoor unit inlet or aluminium pins.
  - You may get personal injury.
▶ Do not install the outdoor unit in a place where animals could live.
  - If an animal comes into contact with the electric parts, damage or fire may occur. In addition ask the customer to maintain a clean installation place around it.
▶ After completing the installation, run the trial operation. If no error occurs, explain to the customer how to use and clean the air conditioner according to the user's manual. In addition give the installation manual and the user's manual to the customer.
▶ Do not open the front panel of the indoor unit during operation.
  - It may cause damage to the product.
▶ Check the product before installing it.
  - Check the unit for damage that may have taken place during transportation and do not install or use damaged equipment.
▶ All of the manufacturing and packaging material used for your new appliance are compatible with the environment and can be recycled.
▶ This product is an air conditioning system and contains a refrigerant that must be recovered and disposed of in an appropriate way by qualified personnel.
  - At the end of the life cycle, take it to a proper recycling or disposal center or return it to the dealer so that it can be disposed correctly.
＊ **When customer claim is caused by not following above safety precaution, installer is responsible for the claim. (Installer is responsible for the service charges.)**

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Required tools

General tools

① Vacuum pump
④ Reamer
⑦ Screw driver
⑩ L wrench

② Torque wrench
⑤ Pipe bender
⑧ Spanner
⑪ Measuring tape

③ Pipe cutter
⑥ Spirit level
⑨ Drill

Tools for test operations

① Thermometer

② Resistance meter

③ Electroscope

Choosing the installation location

Indoor unit

▶ Install the unit at a place close to the wall facing the outside as it is necessary to perform piing connection with the outdoor unit.
  - It is effective to install the unit at the place where air flow is not blocked and the cool air can be distributed throughout the room.
▶ Install the unit at a place where there is no obstacle against the wind around the air intake and air outlet.
▶ Avoid a place near the door which is frequently used by people.
▶ Avoid a place exposed to direct sunlight. (If it is unavoidable, install a sunshade).
  - Surface of the product may get discolored.
✻ Install it on even ground.
  • Make sure there is no abnormal operation or noise generation.
  • If installed on uneven ground, water may overflow.

Outdoor unit

▶ Avoid a place exposed to direct sunlight. (If it is unavoidable, install a sunshade).
▶ A place free from the risk of combustible gas leakage.
▶ A place which can bear the weight of the unit.
▶ A place which can bear the fixing strength of the outdoor unit.
▶ Avoid a place exposed to oil (including machine oil)
▶ Avoid a saline place.
▶ Avoid a place exposed to sulfide gas (hot spring zone).
  - When installing the unit at such special environmental conditions, it may cause trouble to the product. When it is unavoidable, special maintenance is required.
▶ A place where discharged air and noise of the outdoor unit does not disturb the neighborhood.
  - Take extra care not to cause any inconvenience to your neighbors when installing the unit on the borderline with your neighborhood.
▶ A place where strong wind does not head against the air outlet of the outdoor unit.
  - If a strong wind heads directly against the air outlet at the time of cool operation, a safety device can be operated.
✻ Do not install the outdoor unit on a unstable places (such as rooftop). If installation is unavoidable, make sure that you fixed the unit firmly. Avoid places where strong wind or storm can possibly knock down the product (such as seashore or place with frequent storm)

Indoor/outdoor unit installation diagram

Installation space for floor type indoor unit

▶ To minimize the waste of space due to installation, install the indoor unit as shown in below figure.

- **Top view**

✽ After completing the installation, remove the protection vinyl. (Be careful of static electricity).

✽ After completing the installation, remove the protective filament film on the product.

⚠ **CAUTION**
- Make sure that there are no obstacles (such as curtains etc.) blocking air inlets of the indoor unit.
- Clear space on the right side of the indoor unit for possible filter maintenance in the future.
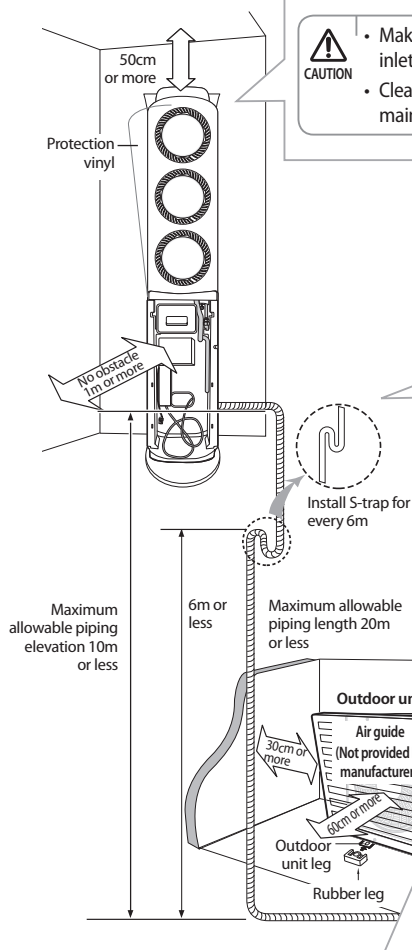
Piping length for indoor/outdoor unit installation

▶ Refer to illustration on the left for maximum allowable piping length and elevation.

▶ Since product performance and lifespan may decrease as piping length becomes longer, try to minimize the piping length but make sure it is over 5m.

▶ Select the installation location where you can keep the piping bending to maximum 10 spots.

▶ Stated cooling performance is based on product with 5m piping.

⚠ **CAUTION**
- One S-trap must be installed on the low pressure pipe up to 6m of piping elevation. For piping elevation that exceeds 6m, install S-trap every 6m.

50cm or more

Protection vinyl

No obstacle 1m or more

Install S-trap for every 6m

Maximum allowable piping elevation 10m or less

6m or less

Maximum allowable piping length 20m or less

30cm or more

Outdoor unit

30cm or more

Air guide (Not provided by manufacturer)

30cm or more

50cm or more

60cm or more

Outdoor unit leg

Rubber leg

20cm or more

Spare space for piping

When air guide needs to be installed to prevent the warm discharge air from disturbing the pedestrian, refer to the illustration on the right side for installation.

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Fixing outdoor unit

Follow below method to firmly fix the outdoor unit.

▶ Using rubber leg
  - Put the rubber leg to the outdoor unit leg. (Refer to illustration on the right.)

▶ Using anchor bolt
  - On a flat, rigid ground, use 4 anchor bolt (M10) to fix the unit. (Anchor bolt should be purchased separately.)
  - Select the anchor bolt that is long enough to securely fix the outdoor unit.

✳ If you need to ensure the outdoor unit from falling, use wires to fix it firmly.
  • Loosen the 4 screws from the top cover of the outdoor unit.
  • Put the wire around the screws and fasten the screws.
  • Fix the wire on the ground.

Anchor bolt fixing dimension

660mm

338mm
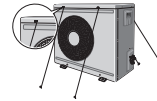
⚠️ **CAUTION**
• When the outdoor unit is not firmly fixed, it may fall and cause personal injury or property damage.
• When the outdoor unit is installed in water-proofed rooftop, fix the wire on the wall.

30cm or more

Outdoor unit

30cm or more

**Air guide
(Not provided by
manufacturer)**

30cm
or more

50cm or more

60cm or more

Outdoor
unit leg

Rubber leg

20cm or more

Spare space for piping
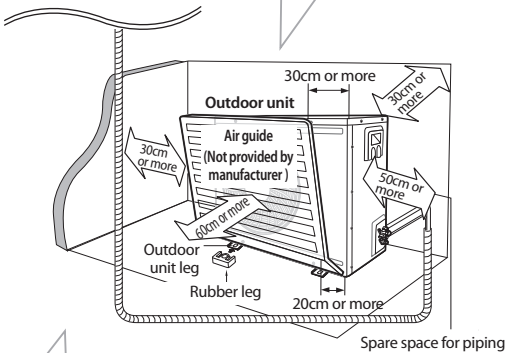
Installation space for outdoor unit

Refer to following examples for wind protection.
▶ When installing in the street with lots of buildings, install the product parallel to the street.
▶ In the places with strong wind, install the product with air outlet facing the wall.

60cm or
more

Wall

Air
outlet

Strong wind

Rooftop

The air intake faces towards the wall

30cm or more

50cm or
more

30cm or more

Spare space
for piping

The air outlet faces towards the all

50cm or
more

Spare space
for piping

30cm or more

60cm or more
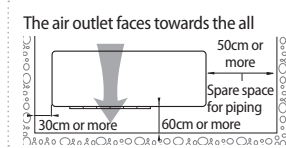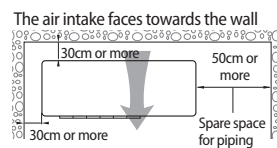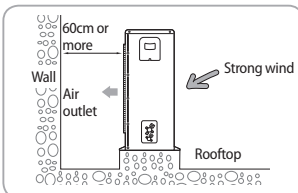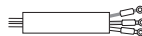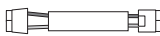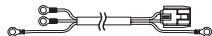
Accessories

Indoor unit accessories

Remote controller	Fixing bracket for indoor unit	Batteries	Remote controller holder
M4X16 screws	**User & installation manual**	**Cleaning cloth (micro fiber)**	

Outdoor unit accessories

| Rubber leg	Main power cable	Indoor/outdoor unit communication cable	Indoor/Outdoor unit power cable

Installation accessories

Drain connection hose	Connection pipe & Insulation (Φ6.35mm)	Connection pipe & Insulation (Φ15.88mm)	Sleeve
Service tube	**Cable tie**	**Putty**	**Bushing**
Finishing tape	**Drain insulation tube**		

✳ Installation accessories may differ depending on the model.

Drilling a hole and fixing the indoor unit

▶ Drill a hole with diameter of 60~65mm towards the outside.

▶ If the indoor unit is installed on unstable ground, it may shake by external force or by children and get knocked down. To prevent these accidents, you must fix the top or back of the indoor unit tightly with fixing brackets.
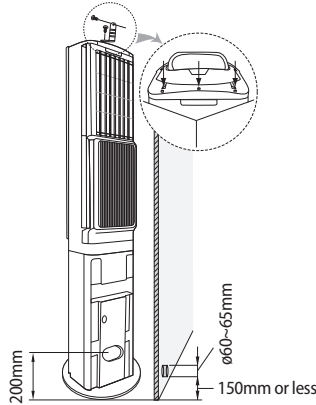
Connecting pipes

> ⚠ **WARNING**
> • When installing, make sure there is no leakage. When recovering the refrigerant, stop the compressor first before removing the connection pipe. If the refrigerant pipe is not properly connected and the compressor works with the service valve open, the pipe inhales the air and it makes the pressure inside of the refrigerant cycle abnormally high. It may cause explosion and injury.

Installation procedure

1. Slightly hit the hole, for piping connection, with your hands or hammer.

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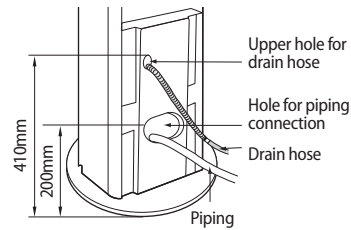
Connecting pipes

2. Bend the connection pipe to an appropriate length using a bender depending upon the installation place.
3. Perform pipe bending process.
   - Perform bending of the pipe using the pipe bender which has a specified bending radius.
   - Be sure to take full care to perform bending of the pipe successfully at one time. Bending and unbending the pipe more than twice makes the bending work increasingly difficult.
4. Connect the high pressure pipe (ø6.35mm) and low pressure pipe (ø15.88mm) to the high/low pressure pipe of the outdoor unit and tightening by applying appropriate torque.

▶ **Flare process**
   1) Cut the pipe using the pipe cutter.

90°

Oblique   Rough   Burr
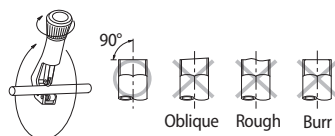
   2) Remove burr on the edge of the pipe.
      • If burr is not removed after cutting the pipe, there is a risk of refrigerant gas leakage.
      • If foreign substance such as burr goes into the pipe, there is a risk of product breakdown. Therefore, face the pipe downward when doing the work.

Pipe

Reamer
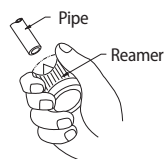
   3) Insert the flare nut into the pipe, and then perform the flare process.

Flaring tool

▶ **Flare length**

D(mm)

H(mm)
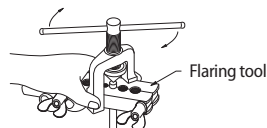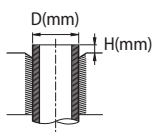
Outer Diameter (D)	ø6.35	ø9.52	ø15.88
Height (H)	1.3mm	1.8mm	2.2mm

▶ **Incorrectly flared pipes**

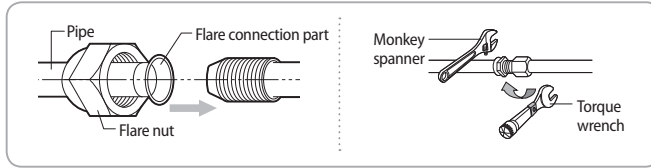Oblique   Damaged surface   Cracked   Uneven thickness

► **Tightening of connection parts**

Alight the pipes to be connected and tighten the flare nuts with your hands first and then with a torque wrench, tighten it in a direction shown in below illustration.

- You can avoid of gas leakage by applying refrigerant oil on the flare connection part.

Diameter(D)	ø6.35mm	ø9.52mm	ø12.70mm	ø15.88mm	ø19.05mm
Torque (kgf•cm)	140~170	250~280	380~420	440~480	990~1210

⚠ **CAUTION**
• Apply the torque depending on the diameter and tighten it securely to make sure there is no leakage.

5. Eliminate the uncondensed gas with vacuum pump and open the service valve to put the refrigerant.
   - Make sure to perform leak test. (Refer to 'Performing leak test' on page 56.)
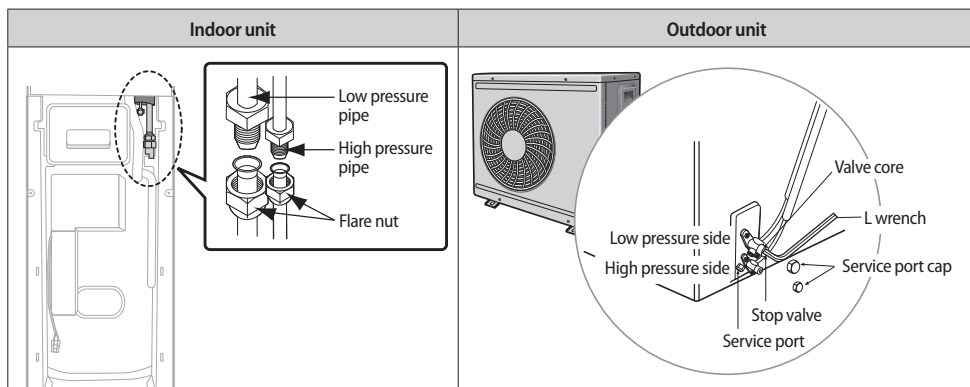
6. Insulate the drain hose after connecting it.
   - Insulate it correctly to avoid dew formation.

► **Pipe insulation**

1) Insulate the refrigerant pipes heavily with the finishing tape. If the insulation is poor, dew may form and leak through the indoor.

2) Use finishing tape wind up the refrigerant pipe.

3) When you bend the pipe and secure a minimum bending radius of 100mm to prevent any distortion of the pipe.
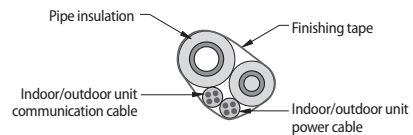
7. Wind a finish tape when connecting refrigerant pipe, and communication cable is completed.

Indoor unit	Outdoor unit

나이지리아, 사우디향 FAC MEMORY 냉방_IBIM_EN_03794A(1).indd   49   2013-02-20   오후 4:05:13
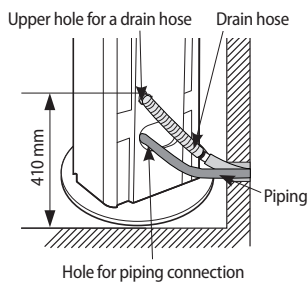
Connecting drain hose

1. Slightly hit the hole, for drain hose, with your hands or hammer.
2. Insulate the drain hose with drain insulation tube and fix it with tape.
3. Make the drain hose to direct downward to establish natural draining.
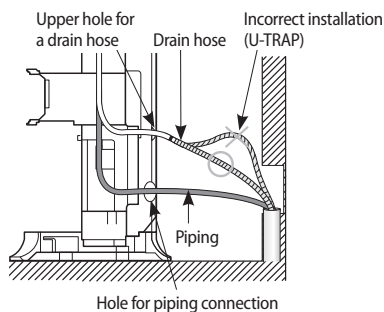   - Make sure to check for proper drainage after connection

> ⚠️ **CAUTION**
> - Fix the drain hose tightly to prevent any water leakage.
> - Do not use the extended drain hose.
>   - Since water may leak from the connection part, make sure that you do not extend the drain hose. However, if extension is unavoidable due to its short length, use silicone sealant to securely seal the connection to prevent leakage. (Do not use the insulation tape.)

Drain hose
Duct drainage [Polypropylene(PP)]
Insulation (foamed polyethylene)
Connection drain hose
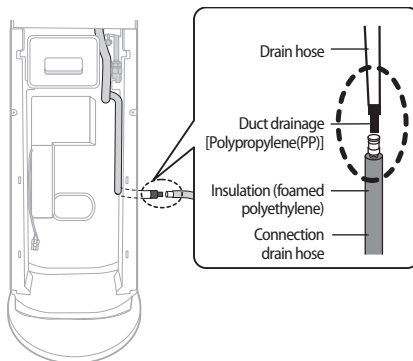
- Connect the drain hose through the upper hole for drain hose.

Upper hole for a drain hose   Drain hose
410 mm
Piping
Hole for piping connection

- Connection with wire-concealed piping

Upper hole for a drain hose   Drain hose   Incorrect installation (U-TRAP)
Piping
Hole for piping connection

> ⚠️ **CAUTION**
> - Make sure the U-TRAP does not occur. Water may overflow and cause property damage.

Electrical work

• The electrical work should be performed by a specialist qualified for the work.
• Avoid using multi-concent but use rate power supply for air conditioner. (Use separate power cable for outdoor unit.)

Wiring standard

▶ Always make sure that the power supply is compliant with current safety standards. Always install the air conditioner in compliance with current local safety standards.

▶ Make sure to install exclusive power supply(purchase separately).
  - If you use multiple connecting, there is a risk of electric shock or fire.

▶ If the outdoor power supply has been selected, install circuit breaker (ELCB). (Purchased separately)

▶ Make sure to connect earth wire.

Type	Indoor unit	Indoor power (Indoor/outdoor unit power cable)
	Outdoor unit	Outdoor power (Earth leakage circuit breaker)
Power		1Ph, 220~240V, 50Hz/60Hz
Circuit breaker		20A
Indoor/outdoor unit power cable		1.0mm² or more
Outdoor unit power cable		2.5mm² or more
Indoor/outdoor unit communication cable		0.75mm² or more

Connecting procedure

1. After loosening the 4 screws(①) of support-inlet, disassemble the support-inlet.
2. Connect the housings of communication cable(②) for an indoor unit and outdoor unit.
3. Fix the power connection cable and communication cable with a cable clamp.
4. After assembling the SUPPORT-INLET and fix it with the screws(①).

Screw ①

SUPPORT-INLET

COVER-PCB

Housing ②

Power terminal

Earth plate
Cable clamp

Communication cable

Power connection cable
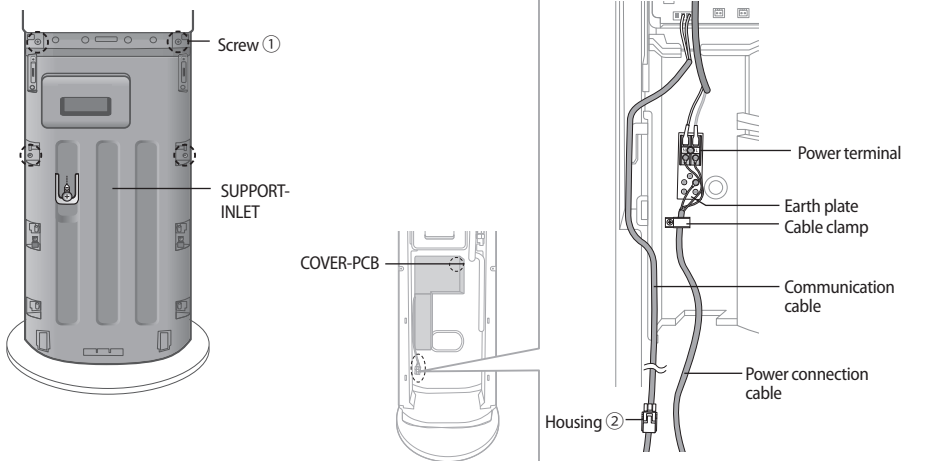
• Do not manually operate the front panel. (If the power is supplied initially to the indoor unit with its front panel open, 30 seconds overstroke will occur.)
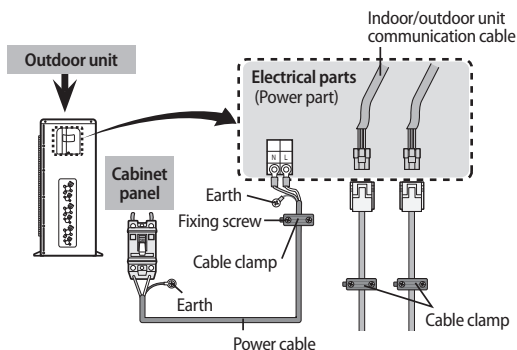
Electrical work

Safety information on outdoor unit power supply

▶ Power cable must be hard chloroprene synthetic rubber or better, which is certified with safety certification (60245 KS IEC 66).
  - Rated voltage: 450/750V, H07RN-F (60245 KS IEC 66)
  - Use cable over 2.5mm² (Distance : 15m or less)

Type of outdoor unit power supply

▶ Comply with tightening torque to make sure that the screws do not get loose.

Screw	Torque	
	kgf•cm	N•m
M4	25~40	2.5~4.0

Outdoor unit

Cabinet panel

Indoor/outdoor unit communication cable

Electrical parts (Power part)

Earth
Fixing screw
Cable clamp
Earth
Power cable
Cable clamp

• The figure of an outdoor unit may be different depending on models.

▶ Before connecting, compressed part of the terminal should face upward.

Installed back to front.

Compressed part is cut.

Ring terminal is detached.

▶ After tightening, there should be no gap between a terminal and a screw.
  - If there is a gap, fire may occur due to the heat of electronic connection part.

Terminal is tightened back to front.

A screw is not tightened firmly or there is a gap between a screw and ring terminal.

⚠️ **CAUTION**
• When connecting the cables to the outdoor unit, reversing the connection of power and communication cable or connecting the earth wire incorrectly, electric leakage or product malfunction may occur.
• Do not cut or modify the supplied cable and install it.
• There is no front and back for the communication cable, so it can be switched.
• Use solderless ring terminal to connect the power cable to the power terminal block. If you connect stranded or solid wires without solderless ring terminal, heat may generate from the connected part and cause fire.

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How to connect your extended power cables

▶ **Items to prepare**

Tools	Crimping plier	Connection sleeve (mm)	Insulation tape	Contraction tube (mm)
Spec	MH-14	20xØ6.5(HxOD)	Width 19mm	70xØ8.0(LxOD)
Shape				

1. As shown in the figure, peel off the shields from the rubber/wire of the power cable.
   - Peel off 20mm of the wire shields of the tube installed already.

Power cable(provided by us)　　(Unit: mm)
20　　20　　20
60
120
180

20
Power cable (provided by us)
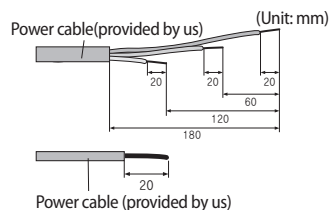
⚠ **CAUTION**　• After peeling off the tube wire, you must insert a contraction tube.

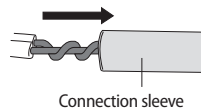2. Insert both sides of core wire of the power cable into the connection sleeve.

▶ Method 1
   Push the core wire in to the sleeve from both sides.

⚠ **CAUTION**　• After peeling off the tube wire, you must insert a contraction tube.
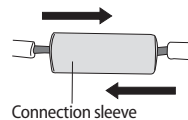
Connection sleeve

▶ Method 2
   Twist the wire cores together and push it in to the sleeve.

Connection sleeve

3. Using a compressor, compress the two points and flip it over and compress another two points in the same location.
   - The compression dimension should be 8.0.
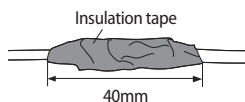   - After compressing it, pull both sides of the wire to make sure it is firmly pressed.
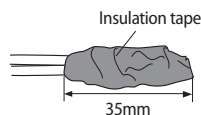
Comp. dim.
8

▶ Method 1
Compress it 4 times
5mm
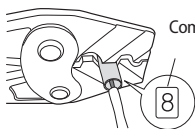
▶ Method 2
Compress it 4 times
5mm
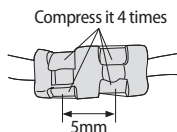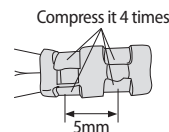
4. Apply heat to the contraction tube to contract it.

▶ Method 1
Insulation tape
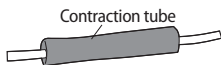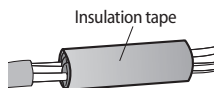40mm

▶ Method 2
Insulation tape
35mm

Electrical work

5. After tube contraction work is completed, wrap it with the insulation tape to finish.

    Contraction tube

6. After tube contraction work is completed, wrap it with the insulation tape to finish.

    Insulation tape

|	
⚠ CAUTION	• In case of extending the electric wire, please DO NOT use a round-shaped pressing socket. - Incomplete wire connections can cause electric shock or a fire.
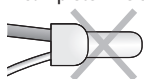
Vacuum pump

Vacuuming pipe

1. Completely connect the indoor/outdoor unit pipes.
2. Connect the manifold gauge to the service valve port of the low pressure side on the outdoor unit.
3. Execute vacuum pump for over 30 minutes.
   - If the pipe extension is larger, time of the vacuum pump should also get longer.
4. After degree of vacuum has been established, open the service valve ①~② as shown in the illustration.
   - Use soapsuds to check for refrigerant leakage on the connection part of the pipes
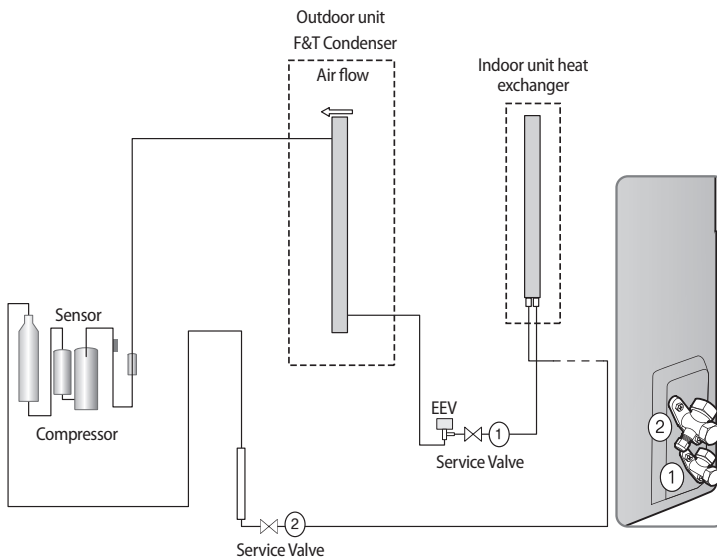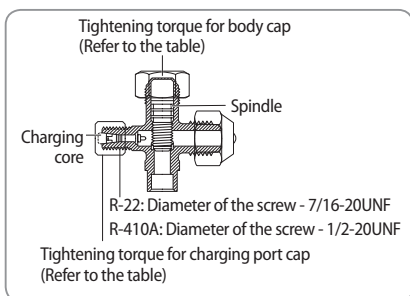

▶ Vacuuming air conditioner
   - Execute vacuum pump on the manifold gauge connected to low pressure side ②, to purge the air from the pipes and indoor unit.

나이지리아, 사우디향 FAC MEMORY 냉방_IBIM_EN_03794A(1).indd   55   2013-02-20   오후 4:05:15

Performing leak test

▶ Use leak tester or soapsuds on the pipe connection part after performing vacuum pump.

Check for leakage

Check for leakage

Test part for indoor unit   Test part for outdoor unit
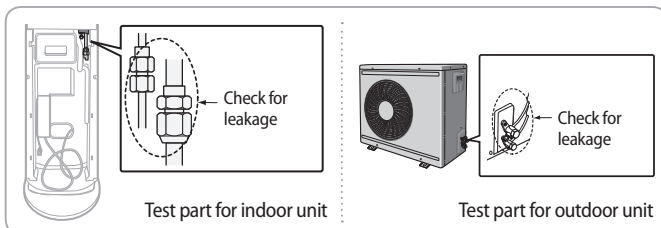
▶ Before inspecting the leakage, use a torque wrench to close the cap for the service valve.(Comply with a tightening torque for each size of the diameter, and tighten the cap firmly to prevent any leakage.)

▶ To check for any possible leakage, insert inert gas into the pipes connected to indoor/outdoor units and check the connection part of the indoor/outdoor units with soap lather or liquid for leakage test.

Tightening torque for body cap
(Refer to the table)

Spindle

Charging core

R-22: Diameter of the screw - 7/16-20UNF
R-410A: Diameter of the screw - 1/2-20UNF

Tightening torque for charging port cap
(Refer to the table)

| Outer Diameter (mm)	Tightening torque	
	Body cap (N•m)	Charging port cap (N•m)
Ø6.35	20 ~ 25	10 ~ 12
Ø9.52	20 ~ 25	
Ø12.7	25 ~ 30	
Ø15.88	30 ~ 35	
Ø19.05	35 ~ 40	

✲ 1 N•m = 10 kgf•cm

Installing the earth wire

Earthing must be done by the installation specialist for your safety.

▶ Connect grounding electrode and the air conditioner.
   - Perform the earthing work 3 on the outdoor unit earthing terminal.

Charging refrigerant

1. Connect the manifold gauge in the low pressure side (gas) and press **Set/Cancel, Mode, Temp +** button simultaneously for 5 seconds to enter the refrigerant charging mode. When the outdoor unit operates, charge the refrigerant.
2. Charge the refrigerant depending on the pipe length.
   - If the installed pipe length exceeds standard length (5m), you must add 30g of refrigerant (R-410A) for every 1m.
   - You do not need to charge the additional refrigerant when pipe length is less than 5m.

Supplied pipe length
5m

Manifold gauge

Gas side

Liquid side

Refrigerant

Electronic scale
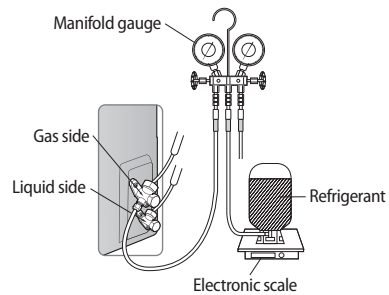
3. After charging the refrigerant, disconnect the manifold gauge from the service port and close the service cap.
4. Deactivate the refrigerant charging mode by pressing **Set/Cancel, Mode, Temp +** button simultaneously for 5 seconds.

⚠ **CAUTION**
   • Make sure to charge refrigerant with accurate amount by using the electronic scale.

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Check and test operation

1. Plug in the power to supply the power.
2. Turn on the air conditioner.
3. While pressing and holding the **Set/Cancel** button on the remote controller, press the **Power** ⏻ button for 3 seconds to display the temperature of indoor heat exchanger.
   - Write down the displayed temperature.
4. Press the **Turbo** button on the remote controller to operate in turbo mode for 10 minutes.
5. Check if the indoor unit is operating normally.
   - Standard condition to judge normal operation. (Indoor/outdoor unit over 21℃, operate in Cool mode for over 10 minute)
6. While pressing and holding the **Set/Cancel** button on the remote controller, press the **Power** ⏻ button for 3 seconds to display the temperature of indoor heat exchanger.
   - If the displayed temperature differs over 10℃ from the temperature written down previously, it is operating normally.
7. When checking above step 1~6 is done, tell the user how to use the air conditioner.

Pump down procedure (When removing the product)

1. Press the **Power** ⏻ button on the indoor unit control panel for 5 seconds to enter the Pump down mode and operate the compressor for over 5 minutes. Or, Press the **Set/Cancel, Mode** and **Temp -** button on the remote controller simultaneously to enter the Pump down mode and operate the compressor for over 5 minutes.
2. Remove the **High/Low** pressure side valve cap.
3. Use the L wrench to completely close the valve on the high pressure side.
4. After 2 minutes, completely close the valve on the low pressure side.
5. Press the **Power** ⏻ button on the indoor unit control panel for 5 seconds to deactivate the Pump down mode. Or, Press the **Set/Cancel, Mode** and **Temp -** button on the remote controller simultaneously to deactivate the Pump down mode.
6. Disconnect the pipe.

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Memo